

STATE BOARD OF EDUCATION

HEARING TYPE: X INFORMATION/ACTION

DATE: NOVEMBER 27–28, 2006

SUBJECT: **APPROVAL OF PSAT/SAT/ACT MATHEMATICS CUTSCORES**

SERVICE UNIT: OSPI Assessment and Research

PRESENTER: Dr. Joe Willhoft, Assistant Superintendent for Assessment and Research, Office of Superintendent of Public Instruction (OSPI)

RECOMMENDATION

It is recommended by OSPI that the State Board approve the following cutscores for purposes of the SAT/ACT/PSAT mathematics alternative assessment option commencing with the Class of 2008:

- PSAT 47
- SAT: 470
- ACT: 19

BACKGROUND:

ESSB 6475 (2006 Session) authorized the use of three alternative methods to meet standards for purposes of receiving a Certificate of Academic Achievement (CAA). One of these methods allows students to meet the mathematics standard based on their scores on the PSAT, the SAT, and the ACT assessments.

The specific provision in the legislation states that:

“A student's score on the mathematics portion of the Preliminary Scholastic Assessment test (PSAT), the Scholastic Assessment Test (SAT), or the American College Test (ACT) may be used as an objective alternative assessment under this section for demonstrating that a student has met or exceeded the mathematics standards for the certificate of academic achievement. The State Board of Education shall identify the scores students must achieve on the mathematics portion of the PSAT, SAT, or ACT to meet or exceed the state standard for mathematics. The State Board of Education shall identify the first scores by December 1, 2006, and thereafter may increase but not decrease the scores required for students to meet or exceed the state standard for mathematics.” (Section 4 (10) (b))

As specified above, the State Board of Education is to “identify the scores students must achieve on the mathematics portion of the PSAT, SAT, or ACT to meet or exceed the state standard for mathematics.” Subsection (10) (a) of the same section also requires that alternative assessments be “comparable in rigor” to the skills and knowledge measured on the WASL.

At the September meeting of the State Board of Education, representatives of OSPI presented four options for setting the cutscores: 1) Adaptation of the WASL/GPA cohort model; 2) Conditional probability of passing the WASL; 3) Least squares regression; and 4) Equipercentile linking. Based on OSPI's initial analysis, the WASL/GPA Cohort model appeared—on balance—to be the best choice.

At the Board meeting, OSPI staff indicated they would be taking the results of the analysis to the National Technical Advisory Committee (NTAC), which would review the four options and make a recommendation to Board. After reviewing the options, the NTAC recommended using the Equipercentile linking option instead of the WASL/GPA cohort model.

Members of the NTAC concluded that the results from the Equipercentile linking option and the WASL/GPA cohort model were generally similar with the results of the WASL/GPA model consistently setting a slightly higher cutscore when multiple years of data were considered. However, two concerns were raised with the WASL/GPA model: 1) the Equipercentile linking option for any year was based on approximately 25,000 students while the WASL/GPA model was based on approximately 600 students a year, making the Equipercentile option likely to be more stable over time, and 2) because the two approaches were consistently similar, it would be difficult for the state to provide a compelling rationale for denying a diploma to a student if the state chose to use the slightly more rigorous standard.

After the SAT cutscore was established, the ACT cutscore was determined by using the 1999 mathematics concordance table created by the College Entrance Examination Board that links SAT mathematics scores with ACT mathematics scores. Although there have been some changes in the types of mathematics questions on the SAT since 1999, the scaling has been adjusted to take these changes into consideration.

The PSAT scoring scale is equivalent to the SAT scoring scale without the last digit, which is always a "0." Thus, a score of 530 on the SAT is equivalent to a 53 on the PSAT.